FILIMONOV, N.A., prof.; VASIL'YEV, P.I., kand.tekhn.nauk; KONONOV, Yu.I., inzh.

Technological conference on the problem of overcoming crack formation in solid concrete structures. Gidr. stroi. 31 no.9: 58-61 S '61. (MIRA 14:12)

(Concrete construction—Congresses)

KONONOV, Yu.P. [Kononov, IU.V.]

All-Union Conference on the Study of Metasomatic Changes of Wall Rocks and Their Role in Ore Formation. Geol. zhur. 23. no.4:118-120 '63 (MIRA 17:7)

KONONOV, Yu.S.

Formation of Triassic structures in the southern Emba Area. Vest.AN Kazakh.SSR 17 no.4:72-79 Ap '61. (MIRA 14:5)
(Emba Valley—Geology)

Kononov, Yu.S.

11(4) PHASE I BOOK EXPLOITATION SOV/2868

Akademiya nauk Kazakhskoy SSR. Institut nefti

Trudy, t. 3 (Transactions of the Petroleum Institute, Kazakh SSR. Academy of Sciences, Vol 3) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 163 p. 700 copies printed.

Eds.: M.P. Korotovskiy and M.Ya. Brailovskaya; Tech. Ed.: Z.P. Rorokina; Editorial Board: M.A. Ayrapetyan (Resp. Ed.), V.G. Ben'kovskiy, T.N. Dzhumagaliyev, and N.A. Zavorokhina.

PURPOSE: This book is intended for scientists, engineers, and technicians in the petroleum industry.

COVERAGE: This volume contains 15 studies on the petroleum geology of Western Kazakhstan. The following studies are of special interest: 1) exploration for water in the southern Emba region to offset an inadequate water supply; the possibility of injecting heated water into oil-bearing formations; the possibility of heating the components of an oil-bearing formation in an electric field of high frequency current; the dielectric permeability and the tangent of the angle of dielectric loss for sands of different porosity at various degrees of moisture and oil saturation; the mineral charges for hydraulic fracturing of

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Transactions of the Petroleum Institute (Cont.) SOV/2868

formations at the Emba oilfields, the adsorption of sodium humates on clay; and the effect of electrolytes on the quality of clay suspensions. No personalities are mentioned. References accompany individual articles.

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Transactions of the Petroleum Institute (Cont.)

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12-31-59

POPOV, A.N.; KONONOV, Yu.S.

Extracting boric acid from a mixture with a magnesium sulfate solution by ion exclusion. Izv. Sib. otd. AN SSSR no. 3:61-67 '61. (MIRA 14:5)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Boric acid) (Magnesium sulfate) (Ion exchange)

KONONOV, Yu.S.

Characteristics of the distribution of Triassic oil pools over salt domes in the southern Emba region. Trudy Inst. geol. i geofiz. AN Kazakh. SSR 1:26-31 '63. (MIRA 16:7)

(Emba region--Salt domes)
(Emba region--Petroleum geology)

KONONOV, Yu.S.

Triassic of the eastern Caspian Lowland. Trudy VNIGNI no.29:141-146 vol. 1 '60. (MIRA 14:7)
(Caspian Lowland--Geology, Stratigraphic)

CHAKABAYEV, S.Ye.; IMASHEV, N.U.; TOKAREV, V.P.; KONONOV, Yu.S.; KORSUN, P.Ye.;
VOTSALEVSKIY, E.S.; IVANOV, V.A.; FARAFONOVA, N.V.; SHAKHOVOY, A.I.

Uzen' gas and oil field; outline of geology and oil and gas potentials. Izv. AN Kazakh. SSR. Ser. geol. 21 no.4:16-30 Jl-Ag '64. (MIRA 17:11)

1. Institut geologii i geofiziki, Gur'yev.

KONONOV, Yuriy Veniaminovich; NIKIFOROV, Aleksey Semenovich; LUKOVTSEV, A.A., inzh., red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.; RUDIN, S.N., inzh., red.; SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk, red.; SHABASHOV, P.A., kand. tekhn.nauk, red.; BEZUKLADNIKOV, M.A., red.izd-va; DUGINA, N.A., tekhn.red.

[Improvements in the technique of assembling bridge cranes] Usovershenstvovaniia v tekhnologii sborki mostovykh kranov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 90 p. (Biblioteka slesaria-montazhnika, no.5). (MIRA 14:7)

(Cranes, derricks, etc.)

KONONOV, Yu. V.

VEKLICH, M.F.; KONONOV, Yu.V.

Characteristics of alluvial deposit gabbroid rocks of the Novo-Mirgorod massif. Dop. AN URSR no.5:485-488 '56. (MLRA 10:2)

1. Institut geologichnikh nauk Akademii nauk URSR.
Predstavleno akademikom Akademii nauk USSR V.G. Bondarchukom.
(Ukraine--Alluvium)

KONONOV, Yu.V.

Olivine gabbro from the Novo-Mirgorod labradorite mountain range. Dop.AN URSR no.6:581-583 '56. (MLRA 10:2)

1. Institut geologichnikh nauk AN URSR. Predstaviv akademik AN URSR M.P.Semenenko.
(Novo-Mirgorod--Gabbro)

KONONOV, Yu. V., Cand Geol-Min Sci -- (diss) "Petrography and Mineralogy of the Novomirgorod gabbrolabradorite plateau and its ilmenoferousness." Kiev, 1957. 15 pp (Min of Higher Education Ukr SSR, Kiev State Univ im T. G. Shevchenko), 100 copies (KL, 52-57, 104)

Kononov, Yu. V.

VEKLICH, M.F.; KONONOV, Yu.V.

Ilmenite placers in the vicinity of the Korsun-Novomirgorodsky Plutonian. Dop. AN URSR no.2:169-171 '57. (MLRA 10:5)

1. Institut geologichnikh nauk AN URSR. Predstaviv akademik AN URSR V.G. Bondarchuk.

(Novomirgorod--Geology, Stratigraphic)

KONONOV, Yu.V.; ETINGOF, I.M.

Gabbro rocks of the Pavlovka area in the Ingul River basin. Dop.AN URSR no.3:358-362 '60. (MIRA 13:7)

1. Institut geologicheskikh nauk AN USSR i Kiyevskiy geologorazvedochnyy trest. Predstavleno akademikom AN USSR N.P. Semenenko [M.P.Semenenko].

(Ingul Valley—Gabbro)

S/008/60/020/003/002/003
B016/B067

AUTHOR: Kononov, Yu. V.

TITLE: Manifestation of tectonic movements in basic rocks of the Novomirgorod massif

PERIODICAL: Geologichnyy zhurnal, v. 20, no. 3, 1960, 81-83

TEXT: In the western contact zone of the gabbro-labradorite massif of Novomirgorod, the author observed breccia, and partly also typical mylonite formations. Hitherto, such mechanical deformations have been observed neither in this massif nor in the similar Volyn' massif (Ref. 2, V. Yu. Tarasenko, Ref. 3, B. I. Luchitskiy, Ref. 1). The specimens concerned were taken from the left bank of the Velyka Vys' river opposite the Schcherbakivka hamlet where labradorite borders granite. At the contact the rocks are dark gray to black with darker or lighter bands running in parallel with the contact. The structure of the rocks here becomes fine-grained to cryptocrystalline. Using numerous sections the author studied and photographed all stages of the crushing of labradorite and its transformation into mylonite. The mineralogic composition of mylonite of

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Manifestation of tectonic movements...

S/008/60/020/003/002/003
B016/B067

this type varies. Fresh labradorite contains about 90% plagioclase, pyroxene, potassium feldspar, quartz, and ore minerals. Plagioclase generally occurs as andesine and labrador no. 48-54. Crushing favors the intensive processes of secondary mineral metasomatism. In the following, albite and prehnite are formed with the former replacing plagioclase not only in the grain boundaries but also in the center, while the latter also fills the gaps in plagioclase. Femic minerals are transformed into chlorite; ilmenite is replaced by sphene and leucoxene. Numerous cracks in minerals are filled with iron oxides, larger cracks are also filled with prehnite and quartz. In cataclasites strongly transformed into mylonite only an iron-containing mass of particles and fine plagioclase and quartz grains can be distinguished. The table gives data on the changes in the mineralogical composition which took place in cataclasite. The author regards brecciation as indicating that the tectonic movements did not stop after the formation of the main rocks of the Korosten' complex had been completed. The movements in this area, however, were only unimportant since tectonites occur rarely. He assumes that the mylonite formation was possibly caused by the tectonic movements at the beginning of the Hercynian tectogenesis which caused the formation of the Dnepr-Donets

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KONONOV, Yu.V.; NECHAYEV, S.V. [Nechaiev, S.V.]

Accessory xenotime from the metasomatite in Pre-Cambrian migmatites of the Bug Valley. Dop. AN URSR no.8:1076-1080 '61. (MIRA 14:9)

1. Institut geologicheskikh nauk AN USSR. Predstavleno akademikom AN USSR N.P. Semenenko [Semenenko, M.P.]
(Bug Valley--Mineralogy)

KUKOVSKIY, Ye.G.[Kukovs'kyi, IE.H.]; KONONOV, Yu.V.

Conversion of ilmenite into rutile in supergene processes.
Geol.zhur. 21 no.6:97-102 '61. (MIRA 15:2)

1. Institut geologicheskikh nauk AN USSR.
(Ilmenite)(Rutile)

KONONOV, Yu.V.

Mineralogy of pegmatites from the Prudniansk Quarry in Cherkassy Province. Dop. AN URSR no.10:1358-1362 '61. (MIRA 14:11)

1. Institut geologicheskikh nauk AN USSR. Predstavleno akademikom AN USSR N.P. Semenenko [Semenenko, M.P.].
(Cherkassy Province--Pegmatites)

S/878/62/000/001/003/003
D204/D307

AUTHORS: Kukovskiy, Ye.G. and Kononov, Yu.V.

TITLE: An X-ray investigation of the rutilization products of ilmenite

SOURCE: Ukraine. Glavnoye upravleniye geologii i okhrany nedr. Rentgenografiya mineral'nogo syr'ya. no. 1, Moscow, 1962. Trudy Pervogo Vsesoyuznogo soveshchaniya v Kieve 25-29 sentyabrya 1959 g. 120-127

TEXT: X-ray investigations of leucoxene, both in its natural state and after heating to predetermined temperatures (400, 700 and 1000°C) were carried out in order to clarify the nature of secondary products resulting from the alternation of ilmenite. Mo-Kα radiation was used, with a ZrO_2 filter and a 2R 86 mm camera. Physical and optical characteristics of leucoxene are mentioned and chemical compositions (performed by S.A. Panchenko) are tabulated. Dehydration curves of rutile, leucoxene, $TiO_2 \cdot nH_2O$, $Fe_2O_3 \cdot TiO_2 nH_2O$ and ilmenite were also plotted for the ranges 0 - 1000°C. It is conclu-

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ded that ilmenite is fully converted to rutile by destruction of the crystal lattice. The first stage consists of the formation of an amorphous solid solution of $nFe_2O_3.mTiO_2.xH_2O$; in the second stage the solid solution decomposes with loss of FeO_3 as FeOOH and the remaining amorphous titania is converted to rutile and possibly anatase or brookite. There are 3 figures and 3 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR (Institute of General and Inorganic Chemistry of the AS UkrSSR) (Ye.G. Kukovskiy); Institut geologicheskikh nauk AN USSR (Institute of Geological Sciences of the AS UkrSSR) (Yu.V. Kononov)

KONONOV, Yu.V.

Apatite from labradorites of the Novomirgorod Massif.
Trudy Inst.geol.nauk AN URSR. Ser.petr.,min. ta geokhim.
no.6:31-36 '60. (MIRA 15:12)
(Novomirgorod Massif--Apatite)

KONONOV, Yu.V.

Accessory ilmenite from gabbro-labradorite rocks of the Novomirgorod Massif. Trudy Inst.geol.nauk AN URSR. Ser.petr.,min. ta geokhim. no.6:37-57 '60. (MIRA 15:12)
(Novomirgorod massif—Ilmenite)

KUKOVSKIY, Ye.G.; KONONOV, Yu.V.

X-ray study rutilated ilmenite products. Rent.min.syr. no.1: 120-127 '62. (MIRA 16:3)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR (for Kukovskiy). 2. Institut geologicheskikh nauk AN UkrSSR (for Kononov).

(X-ray crystallography) (Rutile) (Ilmenite)

KONONOVA, M.M.; KONONOV, Yu.V.

A new massif of gabbro-norite rocks in the middle Dnieper Valley. Dop. AN URSR no.5:647-650 '63. (MIRA 17:9)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom AN UkrSSR N.P.Semenenko [Semenenko, M.P.].

NECHAYEV, S.V.; KONONOV, Yu.V.

New genetic type of rare metal mineralization in Pre-Cambrian migmatites of the European part of the U.S.S.R. Sov.geol. 6 no.4:123-126 Ap '63. (MIRA 16:4)
(Metals, Rare and minor) (Migmatites)

KONONOV, Yu.V.; RYABCHUN, V.K.

Age relationships of veinstones of the Smela massif. Dop. AN URSR no.8:1115-1118 '63. (MIRA 16:10)

1. Institut geologicheskikh nauk AN UkrSSR i Kiyevskiy geologorazvedochnyy trest. Predstavleno akademikom AN UkrSSR N.P. Semenenko [Semenenko, M.P.]

(Smela region—Petrology)

KONONOV, Yu.V., aspirant

Infectious atrophic rhinitis in swine. Veterinariia 39 no.11:47
N '62. (MIRA 16:10)

1. Omskiy veterinarnyy institut.

KONONOV, Yuriy Veniaminovich; NIKIFOROV, Aleksey Semenovich; DUGINA, N.A., tekhn. red.

[Improvements in the technology of the assembly of bridge cranes]Usovershenstvovaniia v tekhnologii sborki mostovykh kranov. Izd.2. Moskva, Mashgiz, 1962. 86 p. (Biblioteka slesaria-montazhnika, no.5) (MIRA 15:11)
(Cranes, derricks, etc.)

SAMSONOV, G.V.; SHUVALOVA, L.M.; SHESTERIKOVA, M.P.; LAVRENT'YEVA, S.F.;
MASLENNIKOVA, V.S.; KONONOVA, A.A.; BOKAREVA, V.V.

Statics and dynamics of the ion exchange of aureomycin and terramycin with hydrogen and sodium ions on cationites. Koll.zhur.18 no.4:474-479 Jl-Ag '56. (MIRA 9:10)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR, Leningrad.
(Ion exchange) (Aureomycin) (Terramycin)

KONONOVA, A.P.

Mineral nutrition for yeasts during the processing of beets for alcohol. Spirt. prom. 25 no.4:28-30 '59. (MIRA 12:7)
(Yeast) (Kashary—Alcohol)

SHUPOV, L.P.; BELONOZHKO, I.F.; GISHCHUK, B.V.; KONONOVA, A.P.; MASLENNIKOVA, K.P.; SVERDEL', E.I.; ARTEMOVA, A.A.

Selection of a synthetic fiber filter cloth for thin iron ore concentrators. Gor.zhur. no.10:60-62 O '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy i proyektnyy institut po obogashcheniyu i aglomeratsii rud chernykh metallov, Krivoy Rog (for Shupov, Belonozhko, Gishchuk). 2. Ukrainskiy nauchno-issledovatel'skiy institut po pererabotke iskusstvennogo i sinteticheskogo volokna (for Kononova, Maslennikova). 3. Yuzhnyy gorno-obogatitel'nyy kombinat, Krivoy Rog (for Sverdel', Artemova).

KONONOVA, B.S.; SIGAL, L.D.

Shifts in the incidence of tuberculous meningitis in the Moldavian S.S.R. from 1953 to 1958. Zdravookhranenie 3 no.3:7-11 My-Je '60. (MIRA 13:7)

1. Iz Respublikanskogo protivotuberkuleznogo dispansera Moldavskoy SSR (glavnyy vrach L.D. Sigal).
(MOLDAVIA--MENINGES--TUBERCULOSIS)

GROS-TOPOR, B.P.; KONONOVA, B.S.

Effectiveness of treatment of pulmonary tuberculosis in children and adolescents in the "Dubesar'" sanatorium. Zdravookhranenie 3 no.3:39-42 My-Je '60. (MIRA 13:7)

1. Iz detskogo tuberkuleznogo sanatoriya "Dubesar'" (glavnyy vrach B.P. Gros-Topor) i Respublikanskogo protivotuberkuleznogo dispansera (glavnyy vrach L.D. Sigal).
(TUBERCULOSIS)

KONONOVA, B.S.; KAUSHANSKAYA, R.M.; KOKLYUGINA, A.I.; MEYERGUZ, M.F.

Late results of the treatment of tuberculous meningitis by a compound method in the Moldavian S.S.R. Zdravookhranenie 6 no.3:49-51 My-Je'63 (MIRA 16:11)

1. Iz Moldavskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk M.A.Burlachenko).

*

LUPPOV, S.P.; KONONOVA, E.A.

Rules for bibliographical description. NTI no.4:10 '63. (MIRA 16:10)

1. Biblioteka AN SSSR, Leningrad.

KONONOVA, E.G.

How to compile determination cards and use them during the study of flowering plants. Biol. v shkole no.4:11-15 Jl-Ag '63. (MIRA 16:9)

1. Kurskiy institut usovershenstvovaniya uchiteley.
(Botany--Audio-visual aids)

KONONOVA, E.G.

Study and collection of medicinal plants by the young naturalists. Biol. v shkole no.3:62-63 My-Je '61. (MIRA 14:7)

1. Kurskiy oblastnoy institut usovershenstvovaniya uchiteley.
(Botany, Medical--Study and teaching)

KONONOVA, E.G.; GLUKHIKH, N.I., uchitel'nitsa

Independent work of students during the study of the topic "Variety of flowering plants." Biol.v shkole no.4:28-32 Jl-Ag '62. (MIRA 15:12)

1. Kurskiy institut usovershenstvovaniya uchiteley (for Kononova).
2. Srednaya shkola No.7, Kursk (for Glukhikh).
(Phanerogams) (Botany—Study and teaching)

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ACCESSION NR: AT5022844 UR/0000/65/000/000/0289/0292

41
40
B3

AUTHOR: Granitskiy, L. V.; Neyermolov, A. F.; Vorob'yev, Yu. K.; Kononova, G. V.

TITLE: Automatic programmed counter 15

SOURCE: Vsesoyuznoye soveshchaniye po kosmofizicheskomu napravleniyu issledovaniy kosmicheskikh luchey. 1st, Yakutsk, 1962. Kosmicheskiye luchi i problemy kosmofiziki (Cosmic rays and problems in cosmophysics); trudy soveshchaniya. Novosibirsk, Redizdat Sib. otd. AN SSSR, 1965, 289-292

TOPIC TAGS: radiation counter, 17 special purpose computer, radioactivity measurement

ABSTRACT: The automatic programmed counter described in the paper is intended for radioactive substances. It contains 2 counting channels, a time channel, a code converter, an output block, a programming device, a registering unit, and a power supply. The block diagram of the device is given together with a brief description of its operation. The maximum counting rate is 500 c/sec, the input pulse amplitude is 5 to 20 v, output resistance of the pulse source is not more than 10 kΩ, pulse rise time is not longer than 0.5 μsec, the maximum channel capacity is 10^7, the quartz generator instability is not larger than $\pm 5 \cdot 10^5$, and the device can be put on every 2, 5, 10, 20 sec, 1, 5, 10, 20 min, and 1, 2 hr. Orig. art. has: 1 figure.

Card 1/2 09010056

L 4502-66

ACCESSION NR: AT5022844

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ASSOCIATION: Institut neorganicheskoy khimii SO AN SSSR (Institute of Inorganic Chemistry, SO AN SSSR)

SUBMITTED: 29Oct64

ENCL: 00

SUB CODE: NP, DP

NO REF SOV: 000

OTHER: 000

OC

Card .2/2

KONONKOVA, G.Ye.; KONTOBOYTSEVA, N.V.

Fluctuations in the modulus of velocity of water particles in wave motion and flow. Vest. Mosk. un. Ser. 3: Fiz., astron. 16 no.1:40-48 Ja-F '61. (MIRA 14:4)

1. Kafedra fiziki morya i vod sushi Moskovskogo universiteta.
(Hydrodynamics)

KONONKOVA, G.Ye.; KONTOBOYTSEVA, N.V.

Study of the kinematics of waves. Okeanologiia 3 no.2:219-224 '63. (MIRA 16:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Waves)

KONONOVA, Ira; ZELENTSOVA, Valya

On the Chernaya River. IUn. nat. no.8:17-18 Ag '58. (MIRA 11:9)

1. Srednyaya shkola No.23, Arkhangel'sk.
(Nature study)

KONONOVA, I.B.

Petrographic characteristics and structure of the crystalline basement of the Popovsk area. Trudy MINKHiHP no.38:29-53 '62. (MIRA 15:9)

(Tatar A.S.S.R.--Petrology)

GARETSKIY, R.G.; KONONOVA, I.B.; SHCHERBOVICH, S.F.

Upper Carboniferous and Lower Permian sediments in the southern periclinal trough of the Urals in the region of the Kokpekty anticline. Biul. MOIP. Otd.geol. 38 no.1:74-93 Ja-F '63. (MIRA 16:5)
(Ural Mountains--Geology, Stratigraphic)

CHERNYSHEV, S.M.; YUDIN, G.T.; PLOTNIKOV, M.S.; KONONOVA, I.B.

Recent data on the distribution of red-colored and magmatic rocks in the Kuma region of eastern Ciscaucasia. Izv. vys. ucheb. zav.; neft' i gaz 8 no.3:8,12 '65.
(MIRA 18:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika Gubkina i trest "Stavropol'neftegazrazvedka".

FAVORSKAYA, T.A.; KONONOVA, K.A.

Gas-liquid and thin-layer chromatography of certain amines.
Vest. LGU 19 no.22:145-147 '64 (MIRA 18:1)

5(3) SOV/79-29-9-18/76

AUTHORS: Favorskaya, T. A., Kononova, K. A., Titov, M. I.

TITLE: On the Transformation Mechanism of Tertiary Alcohols of the Cyclopropane Series Under the Influence of Mineral and Organic Acids. VII. Methyl Cyclopropyl Phenylacetylenyl Carbinol and Methyl Cyclopropyl Acetyl Carbinol and Their Stability in Acid Medium

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2894-2899 (USSR)

ABSTRACT: It was of interest to find out how methyl cyclopropyl phenyl acetylenyl carbinol, a cyclic alcohol with substituted acetylene hydrogen, reacts with sulphuric and hydrochloric acid. A related problem was the hydration of methyl cyclopropyl acetylenyl carbinol and the properties of the methyl cyclopropyl acetyl carbinol resulting in this connection. Methyl cyclopropyl phenyl acetylenyl carbinol (I) was synthesized and identified according to A. Ye. Favorskiy (Ref 7) from phenyl acetylene and acetyl trimethylene in the presence of caustic potash and over the organomagnesium compound. When heated with hydrochloric acid (1:10), methyl cyclopropyl phenyl acetylenyl carbinol (I) was found to be yielded back unchanged from the reaction. On reaction with diluted hydrochloric acid (1:1), methyl cyclo-

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On the Transformation Mechanism of Tertiary Alcohols of the Cyclopropane Series Under the Influence of Mineral and Organic Acids. VII. Methyl Cyclopropyl Phenylacetylenyl Carbinol and Methyl Cyclopropyl Acetyl Carbinol and Their Stability in Acid Medium

propyl phenylacetylenyl carbinol forms a cyclic chloride, methyl cyclopropyl phenylacetylenyl chloro methane (II) (Scheme 1). The authors investigated the hydration of methyl cyclopropyl acetylenyl carbinol (IV), and found the resulting methyl cyclopropyl acetyl carbinol (V) to be stable in acid medium at room temperature. The investigation further revealed that, when distilling the hydration products of methyl cyclopropyl acetylenyl carbinol with steam, the result is an isomerization of methyl cyclopropyl acetyl carbinol in the unsaturated ketoalcohol 3-methyl hexen-3-on-2-ol-6 (VI) (Scheme 2) with subsequent cleavage, under the formation of acetyl trimethylene. The structure of compound (VI) was confirmed by spectroscopic analysis. There are 10 references, 8 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

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SOV/79-29-9-18/76

On the Transformation Mechanism of Tertiary Alcohols of the Cyclopropane Series Under the Influence of Mineral and Organic Acids. VII. Methyl Cyclopropyl Phenylacetylenyl Carbinol and Methyl Cyclopropyl Acetyl Carbinol and Their Stability in Acid Medium

SUBMITTED: September 8, 1958

Card 3/3

KONCNOVA, K.A.; FAVORSKAYA, I.A.

Methods for analyzing α-amino acids tagged with the carbon (C^{14}) isotope. Vest. LGU 17 no.16:135-141 '62. (MIRA 15:9)
(Amino acids) (Carbon--Isotopes)

KONONOVA, K.V.

32-9-18/43

AUTHOR: Fialkov, A.S., Davidovich, Ia.G., Kononova, K.V.

TITLE: On the Evaluation of the Microstructure and the Microstrength in Carboniferous Substances (Ob otsenke mikrostruktury i mikrotverdosti uglerodistykh materialov)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 9, pp. 1091-1092 (USSR)

ABSTRACT: The following is a general and short survey. When investigating the microstructure by means of ordinary metal microscopes the distribution of the components with an increase of the order of magnitude of 120 is observed. In order, however, to ascertain the appearance of the carboniferous powder, an order of magnitude increased to 350-400 is necessary. In some single cases the investigation of the microstructure of carboniferous substances does not suffice for the determination of the conditions for the formation of the investigated compositions. In these cases it is useful to apply the method of measuring the microstrength of structural components. Measuring microstrength makes it possible to obtain a more exact structural analysis of the compositions: soot-tar, soot-coke after annealing and tempering. It is shown that the

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Kononova, K.V.

AUTHORS: Davidovich, Ya.G., Kononova, K.V. 32-1-26/55

TITLE: Investigation of the Microstructure Phase Transformations in Metal-Ceramic Systems During Heating (Mikrostrukturnoye issledovaniye fazovykh prevrashcheniy v metallokeramicheskikh sistemakh pri nagrevanii).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 62-63 (USSR)
[illegible]

ABSTRACT: In the introduction it is said that such investigations are of great importance for production. In this connection it is mentioned that the alloys: copper-lead-tin or copper-tin are characterized by phase transformations with the formation of intermetallic phases already at not very high temperatures. In order to obtain the necessary qualitative impression of these transformations the investigations of microstructure as well as hardness tests were carried out for each component during heating. For this purpose a special device is used which was fitted onto the working table of the microscope or of the device used for testing hardness. This device is used as follows: the sample (8x5x20 mm) is clamped between two massive copper plates one of which is adjustable by means of a screw. A current is fed onto these plates so that they form

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a heater. As these plates are massive, heating takes place mainly in the sample which, as to its diameter, is considerably more narrow. Temperature of the sample is measured by means of a thermocouple which is connected to the sample by means of a textolite bolt. In order to avoid undue heating of the objective of the microscope, this device is covered by a mica plate which has an opening through which the sample may be watched. In this manner, among other things, the compressed samples of powders of copper, lead, tin, and graphite (which are used as material for the production of electric brushes), can be investigated microscopically at various temperatures, and the structural transformations as well as the following transition to the state of melting can be observed. It was possible to carry out similar tests also in apparatus for the testing of hardness. There are 1 figure and 2 Slavic references.

AVAILABLE: Library of Congress

Card 2/2

1. Copper alloys-Microstructure-Transformations
2. Phase transitions

KONONOVA, K.V.

SOV/110-58-10-5/24

AUTHORS: Fialkov, A.S. (Cand.Tech.Sci.), Davidovich, YA.G. (Engineer) and Kononova, K.V. (Engineer)

TITLE: The micro-structure and micro-hardness of brushes for electrical machines. (Mikro-struktura i mikrotverdost' shchetok dlya elektricheskikh mashin.)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, 29 No. 10. pp. 19-23 (USSR)

ABSTRACT: Various powdery materials are used in the manufacture of a brush and their properties have a considerable influence on its structure. Study of the micro-structure and micro-hardness of brushes can give a good idea about the nature of the constituents and about special features of brush manufacture. The procedure used for polishing brush surfaces for microscopic examination is described. Magnifications of X 120 and X 340 were used and the most typical micro-structures of different kinds of brush material are shown photographically in Figs. 1-7. These figures are then explained: petroleum coke (1) and plates of natural graphite (2) are visible in Fig.1; wood charcoal (1) is seen in Fig.2; the characteristic dendritic structure of copper (1) against a background of graphite (2) appears in Fig.3; and grains of bronze (1) with plates of natural graphite (2) are observed in Fig.4. White grains of silver (1) on a background of graphite (2) are visible in Figs.5a. and b. The influence of pressing in orientating the graphite plates is evident in Figs.5a. and b., which are sections perpendicular to and in the direction of pressing respectively. Fig.6. shows the three

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SOV/110-58-10-5/24

The micro-structure and micro-hardness of brushes for electrical machines.

micro-structures of brush material of carbon black and coke immediately after pressing, heat treatment and graphitisation. Different types of structure may occur even with a given formulation and method of brush manufacture. This is illustrated in Fig.7. in which the porous, monolithic and normal structures are discerned. Sometimes examinations of micro-structure do not suffice to elucidate the conditions of formation of brush composition, or to identify the constituents. In this case, measurements of their micro-hardness is helpful. The method of making the micro-hardness determinations is then described. Some substances can be examined without special treatment of the surface; the treatment used in other cases is described. In order to investigate the influence of composition on micro-hardness, samples were made which included different proportions of graphite, carbon black, and binder. Each of the formulations was pressed at 1500 kg/cm^2 and then fired. The test results, given in Table 2, show that the micro-hardness of the natural graphite in the various compositions remained unchanged, whilst that of the carbon black altered considerably. The significance of the figures for the different formulations is discussed. Micro-hardness determinations facilitated a fuller analysis of brush structure. There was also some co-relation with brush performance. Brushes grade EG-8 normally have a micro-

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SOV/110-58-10-5/24

The micro-structure and micro-hardness of brushes for electrical machines.

hardness not greater than 60 kg/cm^2, but when the hardness was about 110 kg/cm^2 the performance of electrical machines with these brushes was impaired. There are 8 figures, 2 tables and 10 literature references (Soviet)

SUBMITTED: April 22, 1958.

1. Sliding contacts--Production 2. Sliding contacts--Materials 3. Sliding contacts--Mechanical properties 4. Sliding contacts --Microstructure 5. Sliding contacts--Performance

Card 3/3

FIALKOV, A.S.; DAVIDOVICH, Ya.G.; KONONOVA, K.V.; YURKOVSKIY, I.M.

Amorphous state of natural graphite powders. Dokl. AN SSSR 153 no.2:390-393 N '63.
(MIRA 16:12)

1. Predstavleno akademikom P.A.Rebinderom.

FAVORSKAYA, I. A.; KONONOVA, K. A.

Cyanoethylation of acetylenic amines. Zhur. ob. Khim. 34 no.6: 2090 Je '64. (MIRA 17:7)

1. Leningradskiy gosudarstvennyy universitet.

KONONOVA, L. A.

KONONOVA, L. A.: "Material on the clinical study of veins in children." Second Moscow State Medical Inst imeni I. V. Stalin. Moscow, 1956. (Dissertations for the Degree of Candidate in Medical Sciences).

SO: Knizhnays Letopis' No. 22, 1956

KONONOVA, L.I.

Dynamic observations on the course of anthracosilicosis in miners of the Rostov coal basin. Sbor. nauch. trud. Rost. gos. med. inst. no.22:125-127 '63.

X-ray examination of the function of the external respiration in anthracosilicosis. Ibid.:128-130 (MIRA 18:7)

1. Iz kafedry rentgenologii i radiologii Rostovskogo gosudarstvennogo meditsinskogo instituta (zav. - prof. A.I. Dombrovskiy).

1. KONONOVA, L. I.

2. USSR (600)

4. Geology, Stratigraphic - Sos'va Valley

7. Report of the Neglinskiy prospecting party of the Sos'va expedition for 1944. [Abstract]. Izv. Glav. upr. geol. fon. no.2. 1947;

9. *Monthly Lists of Russian Accessions*, Library of Congress, March 1953, Unclassified.

KONONOVA, L.I.

Spirifer pseudotrigonalis Semich. species from Lower Carboniferous sediments in central Kazakhstan. Biul.MOIP.Otd.geol. 36 no.6:114-115 N-D '61. (MIRA 15:7)
(Kazakhstan--Brachiopoda, Fossil)

KOZHEVNIKOV, K.Ye.; KONONOVA, L.I.

Chromite bog iron ores of the Serov deposit and prospects for their commercial use. Razved. i okh. nedr 26 no.7:1-6 Jl '60. (MIRA 15:7)

1. Ural'skoye geologicheskoye upravleniye.
(Serov region--Iron ores)

GORELIK, N.G.; Prinimali uchastiye: CHUKOVENKOV, N.I.; MYAGKOVA, I.V.;
BELYKH, G.D.; KONONOVA, L.K.

Method of controlling the process of production of bivinyl from alcohol. Khim. prom. no.4:312-314 Ap '63.
(MIRA 16:8)

CA KONONOVA, L. N.

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Azo dyes from 2,8-aminonaphthol and some of its derivatives. II. Reaction of sulfonic acids of 2,8-aminonaphthol with diazo compounds. V. V. Perekalin and L. N. Kononova (Lensovet Technol. Inst., Leningrad). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 1150-63(1951); cf. *C.A.* 45, 8774*f*.—Addn. of 7.95 g. *2,8-aminonaphthol* (I) at 0-3° to 16 ml. 96% H_2SO_4 and stirring 4 hrs. gave 65% *2,8-aminonaphthol-7-sulfonic acid*, which is poorly sol. in H_2O, and 10% of the *5-sulfonic acid analog*, isolated as the *Na salt*, by salting out of the mother liquor. Sulfonation at 20-30° gives 50% and 35%, resp. Heating the 5-isomer with 20% HCl on a steam bath 28 hrs. gave 2,8-aminonaphthol, thus confirming the structure; the 7-isomer is stable under similar conditions. Coupling of the 5-, 6-, and 7-sulfonic acids of I was done at various pH levels: 2.5-3.0, 4.8-5.0, 5.2-5.4, 11.8-12.0, and in pyridine. Coupling of PhN_2Cl at pH 2.5-3.0 with I-*6-sulfonic acid* gave 9% *1-(benzeneazo)-2,8-aminonaphthol-6-sulfonic acid*, the same forming in 85% yield on coupling at pH 4.8-5.0; the product, a dark bronze powder with abs. max. at 500 mμ, in the latter case forms along with a less sol. *7-(benzeneazo)-2,8-naphthol-6-sulfonic acid*, obtained in 81% yield in coupling at pH 12; this material has the abs. max. at 510 mμ. Neither could be converted to a disazo dye. The 1-benzeneazo deriv. after reduction with Zn dust and treatment with phenanthrenequinone and $NaHSO_3$ in aq. suspension gave 35% yellow-brown *8-hydroxy-1,2-naphthophenanthrazine-7-sulfonic acid*. Coupling I-*5-sulfonic acid* with *PhN_2Cl* at pH 5 gave 22% product, readily sol. in alkali, which is the *1-benzeneazo deriv.* (II), with abs. max. at 490 mμ, and 11% less sol. *7-benzeneazo deriv.* (III) with abs. max. at 500 mμ. Reduction of the former with $SnCl_2$ gave *1,2-diamino-8-naphthol-5-sulfonic acid*, which with phenanthrenequinone gave 28% *8-hydroxy-1,2-naphthophenanthrazine-7-sulfonic acid*, olive-green. Addn. of PhN_2Cl to II at pH 12 gave *1,7-bis(benzeneazo)2,8-aminonaphthol-5-sulfonic acid* in 45% yield; abs. max. not detd. owing to poor soly. III also forms on coupling of I-*5-sulfonic acid* with PhN_2Cl at pH 12 in 87% yield and does not couple with a second mole of PhN_2Cl. Coupling I-*7-sulfonic acid* with PhN_2Cl at pH 5 gave 45% *1-benzeneazo deriv.*, more sol. in alkali, with abs. max. 490 mμ, and 13% *5-benzeneazo deriv.*, with abs. max. 500 mμ. The latter forms in 75-80% yield on coupling at pH 12, while reduction of the former followed by treatment with phenanthrenequinone gave 8-hydroxy-1,2-naphthophenanthrazine-7-sulfonic acid in 25% yield. Coupling of the 1-benzeneazo deriv. with PhN_2Cl at pH 12 gave *1,5-bis(benzeneazo)2,8-aminonaphthol-7-sulfonic acid*, in 71% yield, while the 5-benzeneazo deriv. failed to couple again. Titration of I-5-sulfonic acid gives breaks at pH 3.4, 7.3, and 10.9; the 7-isomer gives breaks at 5.7 and 9.7. G. M. Kosolapoff

KONONOVA, L. N.

USSR/Chemistry - Heteroatomic compounds

Card 1/1 : Pub. 151 - 17/37

Authors : Efros, L. S.; Kononova, L. N.; and Eded, Ya.

Title : Investigation of imidazole derivatives. Part 13.-Bromination of 1,2-naphthimidoazole

Periodical : Zhur. ob. khim. 24/3, 488-491, Mar 1954

Abstract : The analogy existing between 1,2-naphtimidoazole and phenanthrene during the oxidation, as well as bromination of 1,2-naphthimidazole, is debated. The two stages of the bromination process - formation of conversion productin position 4 and formation of a labile and easily dissociating addition product - are described. The characteristics of 1,2-naphthimidazole and their relation to the imidazole ring effect on the bond equilibrium in molecules with condensed nuclei are explained. The possibility of bromination of 1,2-naphthimidazole in mineral-acid aqueous solutions, as well as in methyl alcohol or ice-cold acetic acid, was established. Four references: 3-USSR and 1-USA (1910-1954).

Institution : The Lensoviet Technological Institute, Leningrad

Submitted : October 29, 1953

EWT(l)/EWT(m)/FCC/EWP(t)/ETI/EWP(n) IJP(c) GW/JD/JG/RO

ACC NR: AP6031063

SOURCE CODE: UR/0007/66/000/009/1126/1128

AUTHOR: Smirnov, L. Ye.; Kononova, L. N.

ORG: None

46.

TITLE: Uranium content in atmospheric aerosols 6

21

SOURCE: Geokhimiya, no. 9, 1966, 1126-1128

TOPIC TAGS: uranium, radioactive aerosol, troposphere, filter, photometer / FPA-15 filter, LYuF-57 photometer 10

18

ABSTRACT: The results of investigations of uranium content in the troposphere are presented. The investigations were conducted mainly in 1959 by collecting aerosols from airplanes and then filtering them by means of FPA-15 filter material. The samples were calcined at 400 to 450 C and dissolved in a mixture of hydrofluoric and nitric acids. A fluorometric method of uranium determination was applied by using a luminescent photometer of LYuF-57 type. The test beads on a platinum wire were made of a dry nonluminescent sodium floride. On the basis of various experiments and data taken from other sources, it was determined that the negative effect of various chemical elements on the uranium fluorescence is practically negligible in aerosols. The results of determining the monthly average concentrations of uranium in the troposphere during 1959 are graphically represented with a sharp increase in uranium content indicated at the beginning of

Card 1/2

UDC: 550.42:546.791+551.51

KONONOVA, L. P.

Category:

Abs Jour: RZh--Kh, No 3, 1957, 7755

C

Author : Solov'yev, S. I., Krylov, Ye. I., and Kononova, L. P.
Inst : Not given
Title : Purification of Niobium from Titanium by Means of Cation-Exchange Resins

Orig Pub: Zh. Neorgan. Khimii, 1956, Vol 1, No 4, 660-663

Abstract: The separation method is based on the ability of freshly precipitated niobic acid to form a colloidal suspension of niobium oxychloride after treatment with concentrated HCl; the oxychloride is not adsorbed on the cation-exchange resins, whereas Ti and other impurities present in the form of cations are adsorbed. Three grades of cation-exchange resins were used in the acid form: Espatit-1, Espatit-A, and Sulfougol-K. Some adsorption of Nb was observed on each of the above cation-exchange resins (Sulfougol-K showing the least adsorption). At HCl concentrations of 0.1-0,2N, the Nb is retained in the eluent while

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Ural Polytech Inst.

Category: USSR

C

Abs Jour: RZh--Kh, No 3, 1957, 7755

the Ti is 90% adsorbed even when present in considerable amounts; however, the less Ti is present in solution, the more complete is the adsorption. By repeated recycling of the solution niobium of purity in excess of 99.9% can be prepared. The adsorbed Ti is recovered by elution with 2N HCl or a 5% solution of oxalic acid; in the latter case small amounts of Nb adsorbed by a mechanism different from that of ion exchange (surface adsorption) are also recovered.

Card : 2/2

SHCHUKAREV, S.A.; LOBANEVA, O.A.; IVANOVA, M.A.; KONONOVA, M.A.

Spectrophotometric study of complex palladium (II) chlorides in aqueous solutions. Vest.LGU 16 no.10:152-155 '61. (MIRA 14:5)
(Palladium compounds) (Spectrophotometry)

SHCHUKAREV, S.A.; LOBANEVA, O.A.; IVANOVA, M.A.; KONONOVA, M.A.

Formation constants of complex divalent palladium bromides. Zhur. neorg. khim. 9 no.12:2791-2792 D '64. (MIRA 18:2)

1. Leningradskiy gosudarstvennyy universitet, kafedra neorganicheskoy khimii.

SHCHUKAREV, S.A.; LOBANEVA, O.A.; IVANOVA, M.A.; KONONOVA, M.A.

Spectrophotometric study of complex palladium (II) chlorides in aqueous solutions. Part 2. Vest. LGU 19 no.16:140-142 '64.
(MIRA 17:11)

SHCHUKAREV, S.A.; LOBANEVA, O.A.; KONONOVA, M.A.

Formation constants of complex palladium (II) iodides. Vest. LGU 20 no.4:149-150 '65. (MIRA 18:4)

18.8310

29363
S/152/61/000/011/002/002
B126/B110

AUTHORS: Chistyakov, V. M., Kononova, M. I.

TITLE: Mechanism of the protective effect of benzoic acid as an inhibitor of steel corrosion in carbon tetrachloride

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 11, 1961, 103-105

TEXT: The authors studied the kinetics of an invisible protective film formed on metal surfaces in moist carbon tetrachloride containing benzoic acid. For corrosion tests the electrochemical and gravimetric methods were applied to rectangular samples (53·19·2 mm) made of Ст.-10 (St.-10) steel. To ascertain the induction period of destruction of the protective film by the former method, the samples were immersed into inhibited tetrachloride (0.01% H_2O) for a certain time and their potentials were measured. Subsequently, and in the same vessel, the point of an electrolytic contact filled with agar-agar gel was pressed to the surface of each sample; the gel was prepared on the basis of a saturated aqueous tetrachloride solution with $pH \approx 4$. The film was thus slowly destroyed.

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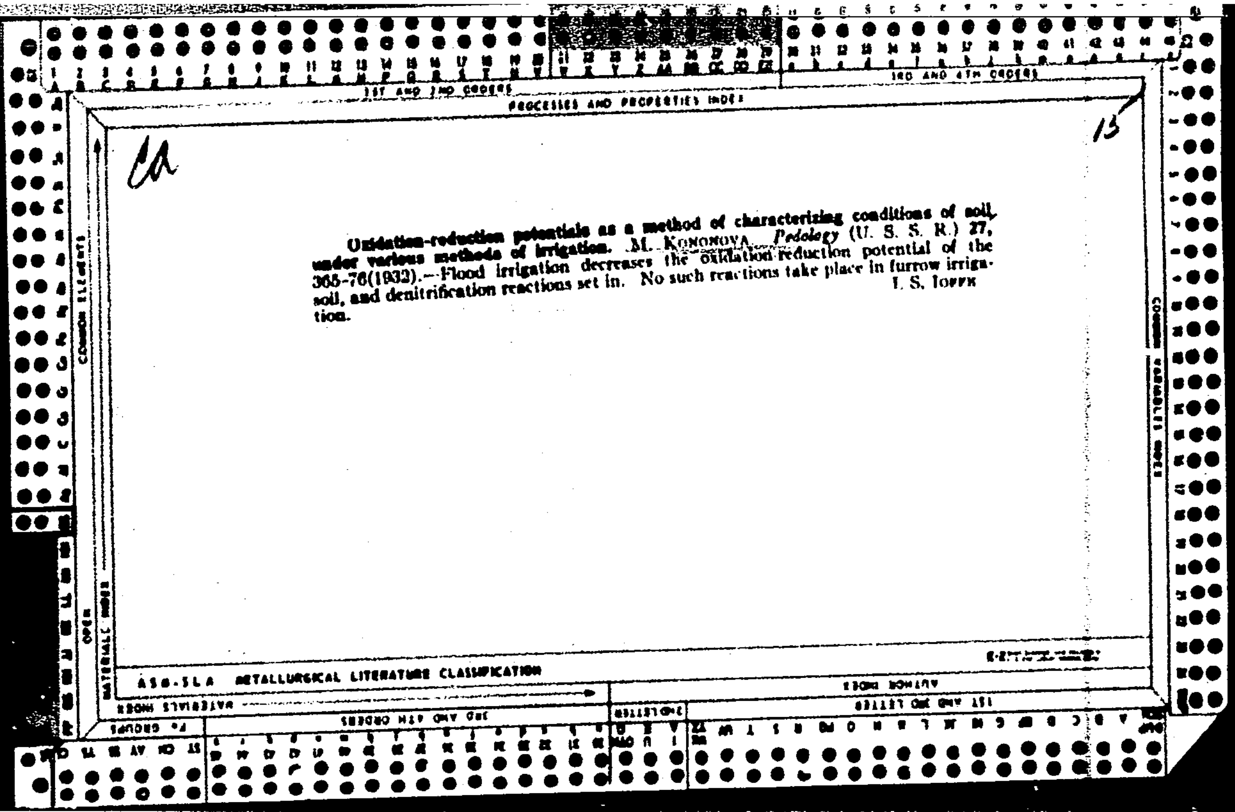
and a sudden jump of the electrode potential toward negative values showed the final destruction. The results proved that the protective properties of the film formed in inhibited tetrachloride progressively improved with time from 2 sec in 24 hr to >600 sec. in 816 hr. Similar results were obtained by the gravimetric method. The samples were immersed into inhibited moist tetrachloride for a certain time, then the adsorbed benzoic-acid molecules were washed off with dry tetrachloride, and the samples were again immersed into moist tetrachloride but without inhibitor. The protective effect of the film was gravimetrically calculated from the formula: $Z_{pe} = \frac{I - I_0}{I} \cdot 100\%$ (2), where I = induction period of corrosion in tetrachloride without inhibitor; the samples were previously immersed into inhibited tetrachloride. I_0 = induction period of corrosion of control samples not immersed into inhibited tetrachloride. Z_{pe} = protective effect of the film in tetrachloride without inhibitor calculated from induction period of corrosion. These latter tests also showed that the protective effect of the film increased with time and that the absence of an inhibitor in tetrachloride resulted in gradual destruction of the protective film. This proves that a dynamic equilibrium exists between

CHISTYAKOV, V.M.; KONONOVA, M.I.

Mechanism of the protective action of benzoic acid as an inhibitor of corrosion of steel in four-layer carbon. Izv. vys. ucheb. zav.; neft' i gaz 4 no.11:103-105 '61. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina.



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3RD AND 4TH ORDERS

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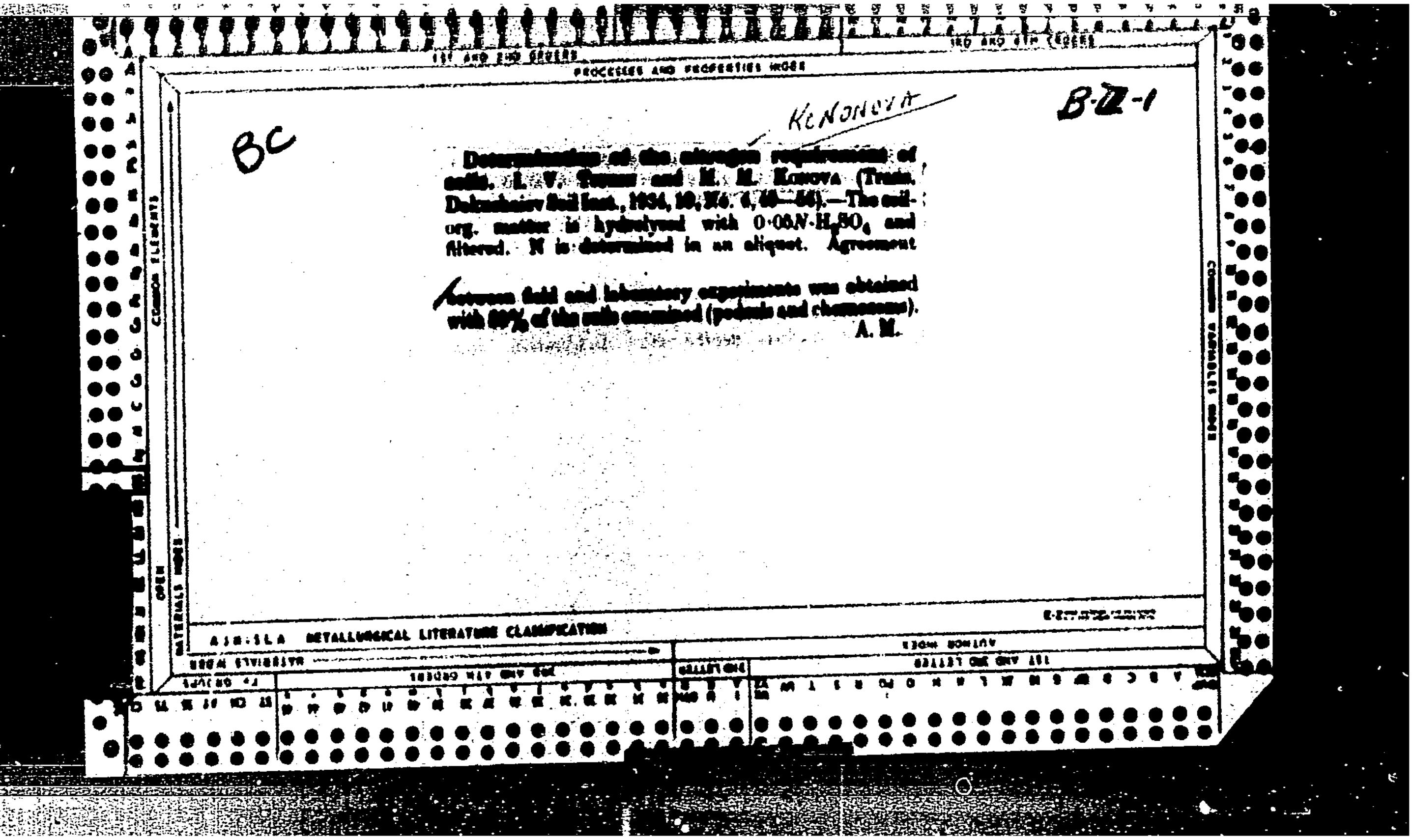
13

Oxidation-reduction potentials as a method of characterizing conditions of soil under various methods of irrigation. M. Kononova. *Pedology* (U. S. S. R.) 27, 365-76(1932).—Flood irrigation decreases the oxidation-reduction potential of the soil, and denitrification reactions set in. No such reactions take place in furrow irrigation. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



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BC

B-II-1

KoNoNova

Determination of the nitrogen requirements of soils. I. V. Tyurin and M. M. Konova (Trans. Dokuchaev Soil Inst., 1934, 10, No. 4, 49—56).—The soil-org. matter is hydrolysed with $0{\cdot}05N\text{-}H_2SO_4$ and filtered. N is determined in an aliquot. Agreement between field and laboratory experiments was obtained with 80% of the soils examined (podsols and chernozems).

A. M.

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KONONOVA

Determination of the nitrogen requirement of soils. I. V. Tyurin and M. M. Kononova. *Trans. Dokuchaev Soil Inst.* 10, No. 4, [illegible]([illegible]).—The soil org. matter is hydrolyzed with 0.05 N H_2SO_4 and filtered. N is detd. in an aliquot. Agreement between field and lab. expts. was obtained with 80% of the soils examd. (podsols and chernozems).

B. C. A.

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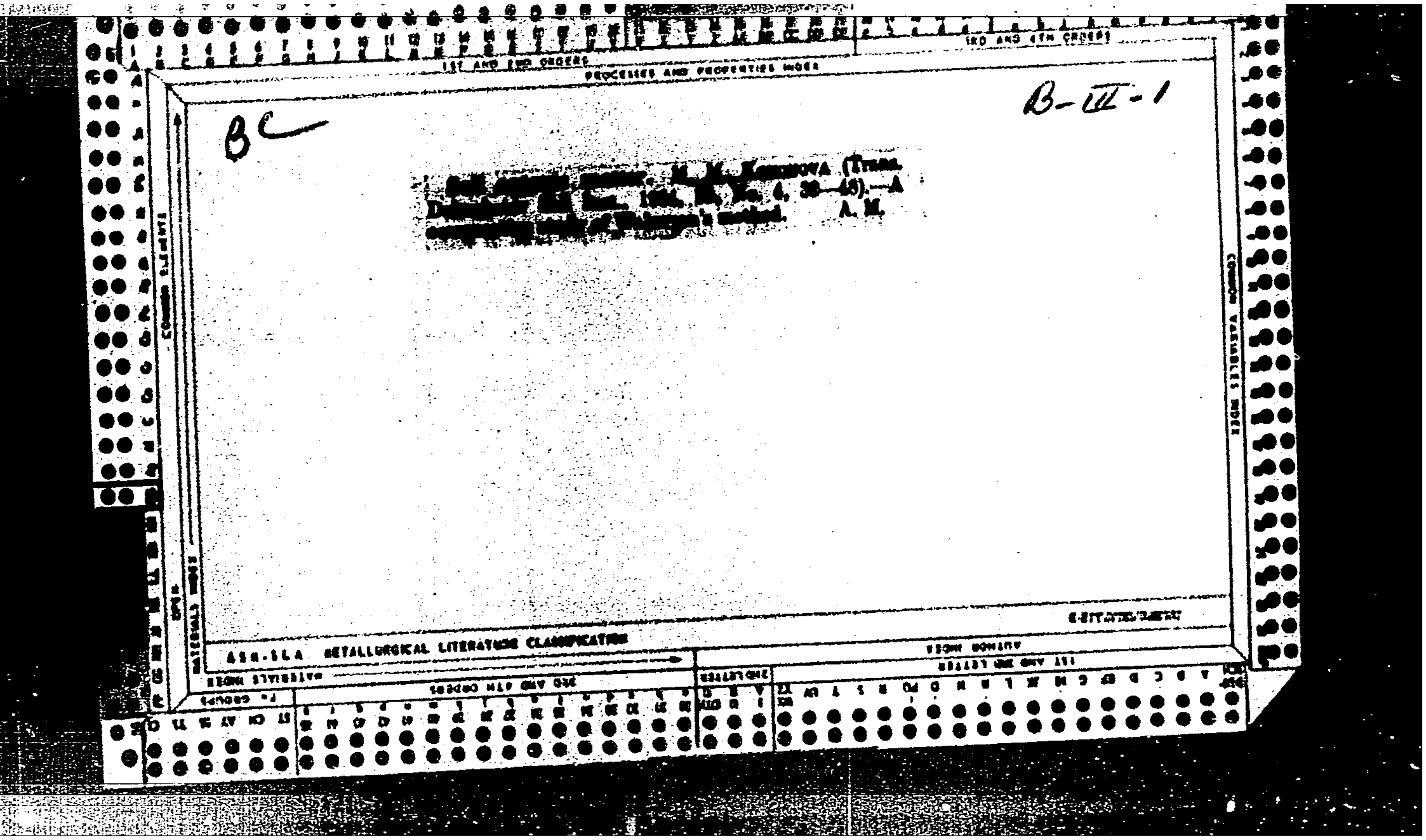
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B-III-1

[illegible] M. M. K[illegible]OVA (Trans. D[illegible] 193[illegible], No. 4, 38—46).—A [illegible] method. A. M.

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COMMON ELEMENTS

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Methods of determining the nitrogen requirements of soils. I. V. Tyurin and M. M. Kononova. *Trans. Dokuchaev Soil Inst.* (U.S.S.R.) 11, 159-70 (in English 180) (1935); cf. *C. A.* 30, 4110.—The soil (podzols and chernozem were used in the tests) is treated with 0.5 ✓ H_2SO_4 at room temp. and the total N detd. on the ext. When the quantity of N per kg. drops below the 90-mg. value the soil is said to be deficient in N. J. S. Joffe

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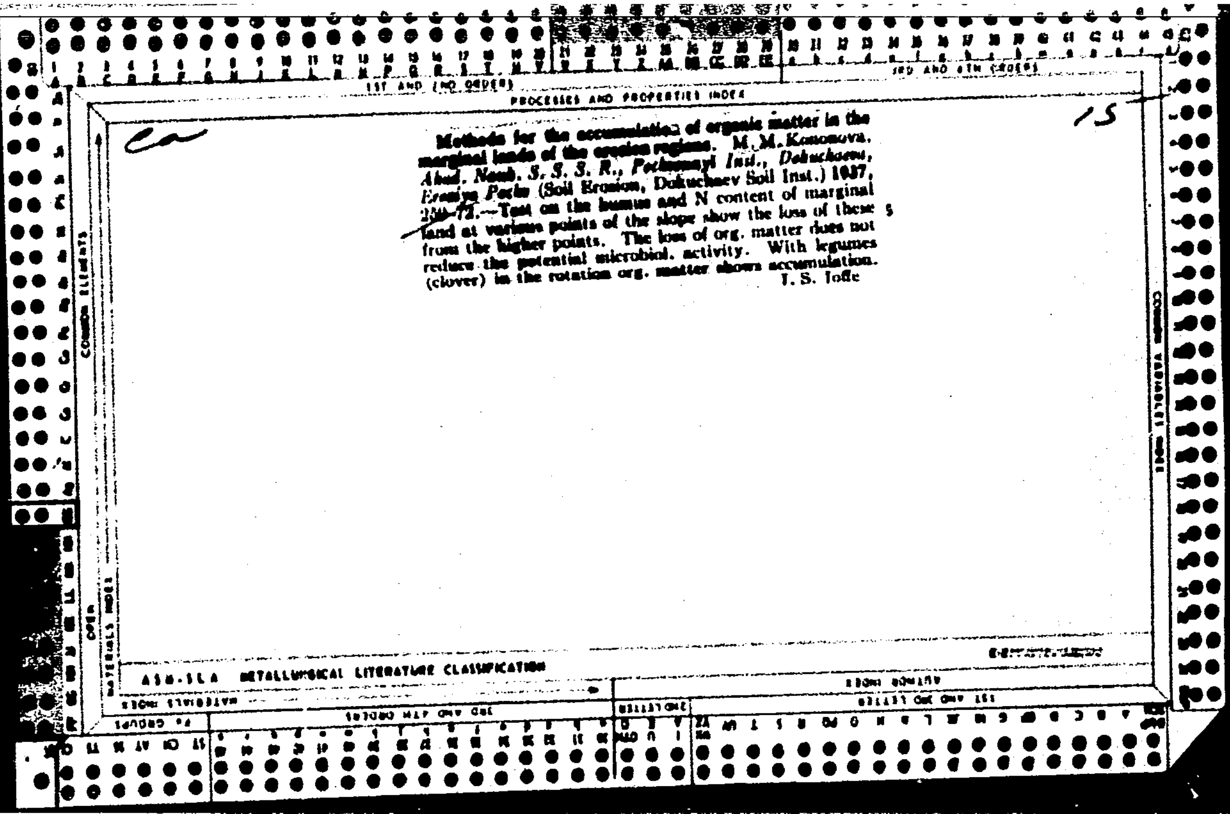
1ST GROUPS



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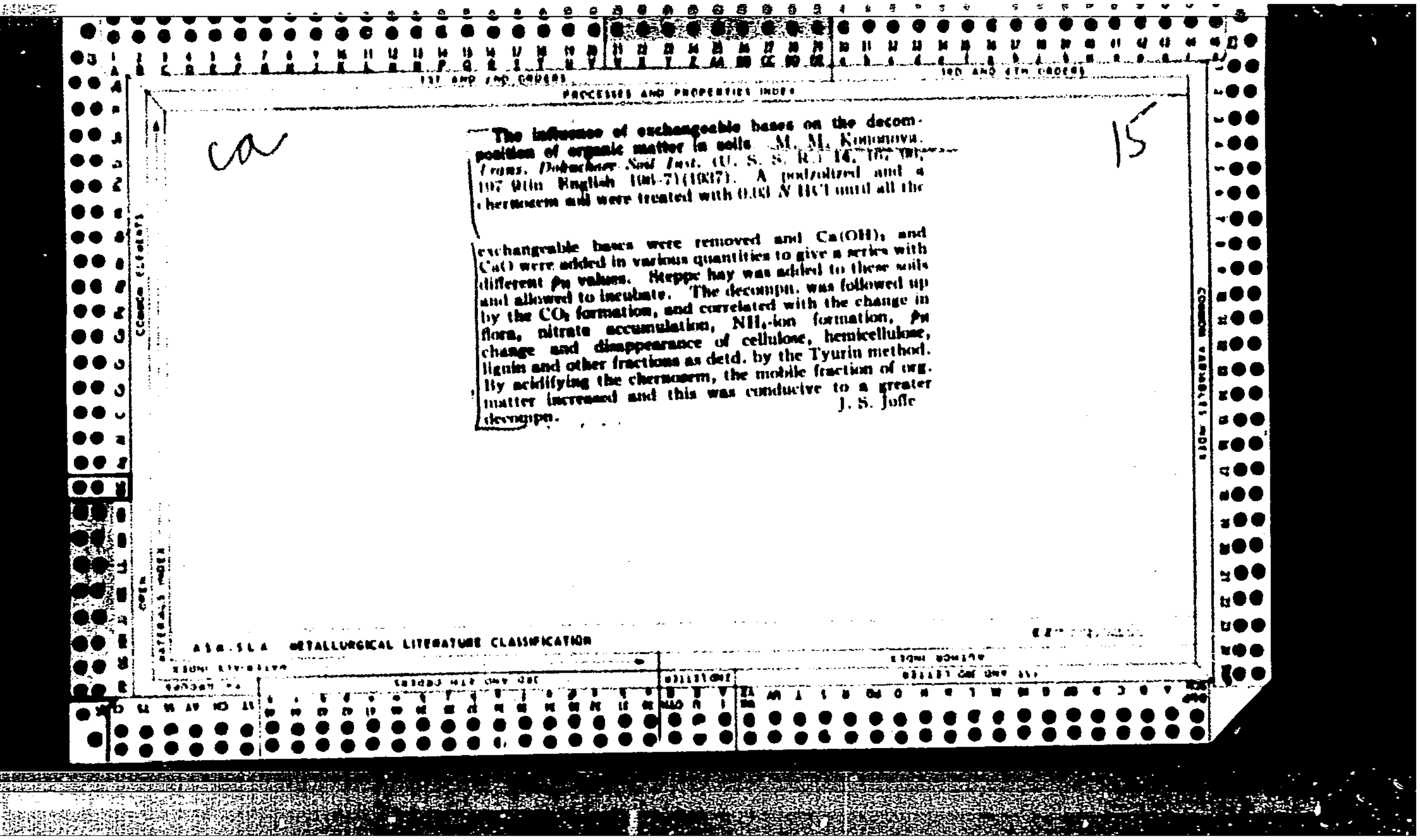
Methods for the accumulation of organic matter in the marginal lands of the erosion regions. M. M. Kononova. *Akad. Nauk. S. S. S. R., Pochvennyi Inst., Dokuchaeva, Eroziya Pochv* (Soil Erosion, Dokuchaev Soil Inst.) 1937, 250-72.—Test on the humus and N content of marginal land at various points of the slope show the loss of these from the higher points. The loss of org. matter does not reduce the potential microbiol. activity. With legumes (clover) in the rotation org. matter shows accumulation. J. S. Joffe



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The influence of exchangeable bases on the decomposition of organic matter in soils. M. M. Kononova. *Trans. Dokuchaev Soil Inst.* (U. S. S. R.) 14, 107-91; in English 190-71(1937). A podzolized and a chernozem soil were treated with 0.05 N HCl until all the exchangeable bases were removed and $Ca(OH)_2$ and CaO were added in various quantities to give a series with different *p*H values. Steppe hay was added to these soils and allowed to incubate. The decompn. was followed up by the CO_2 formation, and correlated with the change in flora, nitrate accumulation, NH_4-ion formation, *p*H change and disappearance of cellulose, hemicellulose, lignin and other fractions as detd. by the Tyurin method. By acidifying the chernozem, the mobile fraction of org. matter increased and this was conducive to a greater decompn. J. S. Joffe

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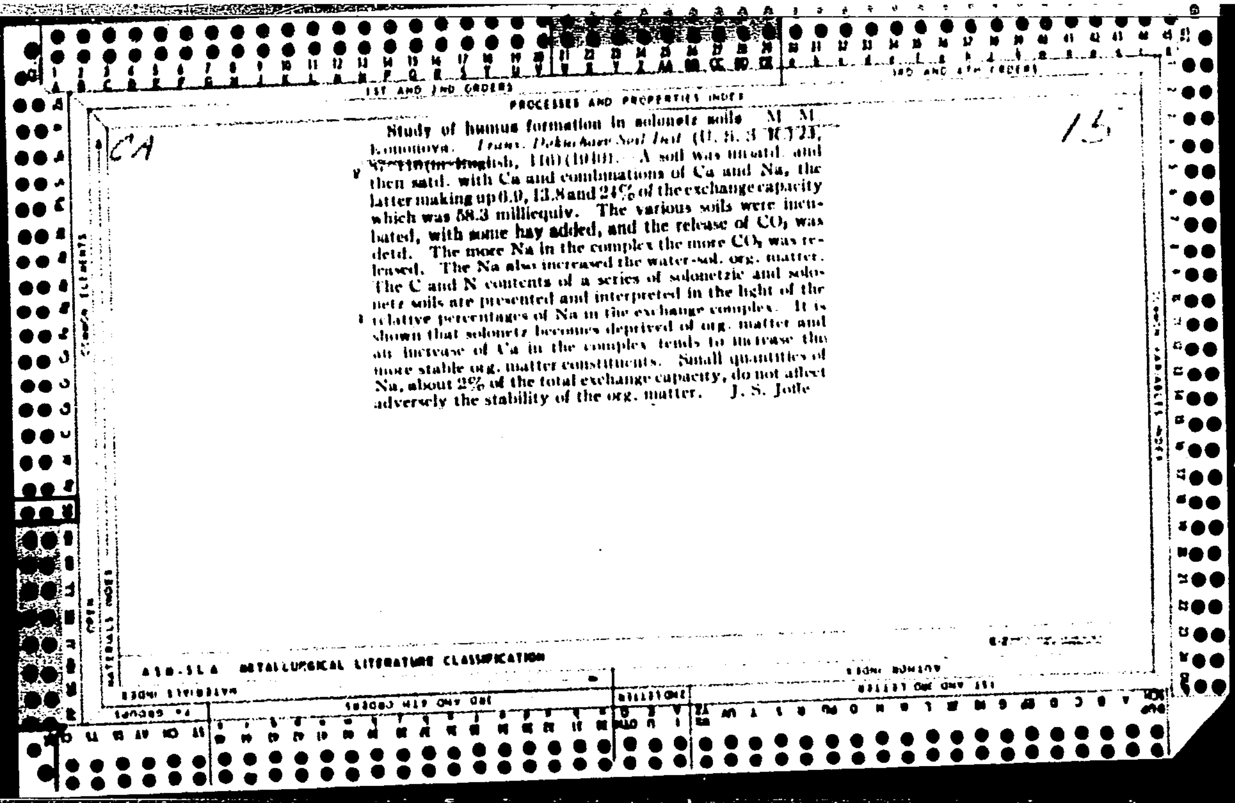
Investigation of the organic matter of soils under conditions of cotton plant-alfalfa crop rotation in Central Asia. M. M. Kononova. *Sovet. Agronomia* 1940, No. 2-3, 71-7; *Khim. Referat. Zhur.* 1940, No. 9, 45.—Humus accumulates rapidly in the soil during the first 2 years of alfalfa growth, more slowly during the 3rd year. After the alfalfa field is plowed for cotton planting rapid mineralization of the roots occurs. Data on the compn. of the org. matter of the root mass of alfalfa during its growth and during the decompn. period after ploughing are given and the ability of org. N of alfalfa roots to undergo mineralization is discussed. The org. matter of gray soils of the Pakhta Aral farm contains 6-12% of hemicellulose and 4-7% of cellulose. The insignificant content of humic acid is one of the reasons for the low exchange power of gray soils. The group "humin-lignin" composes 30% of the soil. Lignin is the principal component of this group. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

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CA

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Study of humus formation in solonetz soils. M. M. Kononova. *Trans. Dokuchaev Soil Inst.* (U.S.S.R.) 23, 87-110 (in English, 110) (1940). A soil was unsatd. and then satd. with Ca and combinations of Ca and Na, the latter making up 0.0, 13.8 and 24% of the exchange capacity which was 58.3 milliequiv. The various soils were incubated, with some hay added, and the release of CO_2 was detd. The more Na in the complex the more CO_2 was released. The Na also increased the water-sol. org. matter. The C and N contents of a series of solonetzic and solonetz soils are presented and interpreted in the light of the relative percentages of Na in the exchange complex. It is shown that solonetz becomes deprived of org. matter and an increase of Ca in the complex tends to increase the more stable org. matter constituents. Small quantities of Na, about 2% of the total exchange capacity, do not affect adversely the stability of the org. matter. J. S. Joffe

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15

Results of a study of the organic matter of serozen (gray soils) of the Pakhta Aral Soviet collective in Kazakstan. M. M. Kononova and E. P. Lagunova. *Trans. Dokuchaev Soil Inst.* (U. S. S. R.) 23, 117-37 (in English, 137) (1940).—Data are presented: on the humus content of gray soils under alfalfa; on the C, N, water-sol., alc.-ether ext., hemicellulose and starch, cellulose, lignin, protein and ash of alfalfa, tops and roots of a 1st-, 2nd-, 3rd- and 5th-year stand. The detns. were made on the living alfalfa, and on the decompg. plants after plowing for cotton. The rapid transformation of the N compds. in the decompn. of the alfalfa was also followed up.

J. S. Joffe

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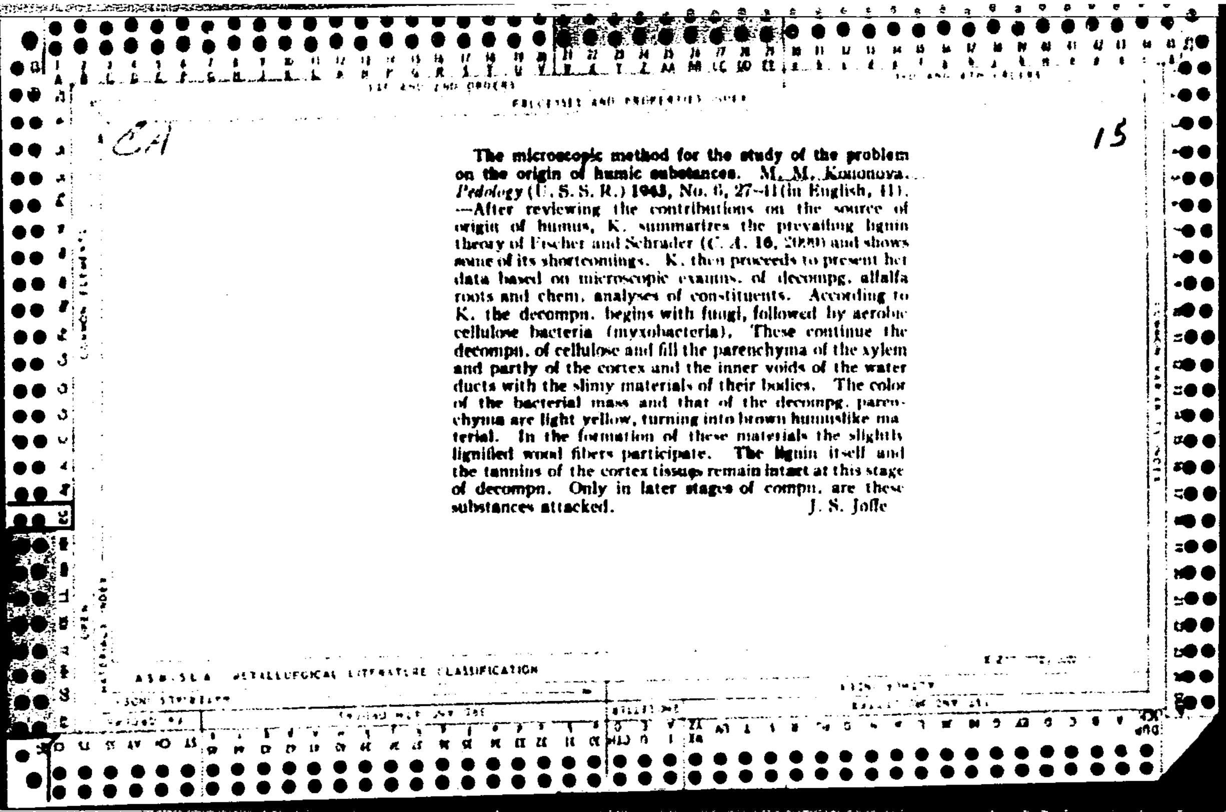

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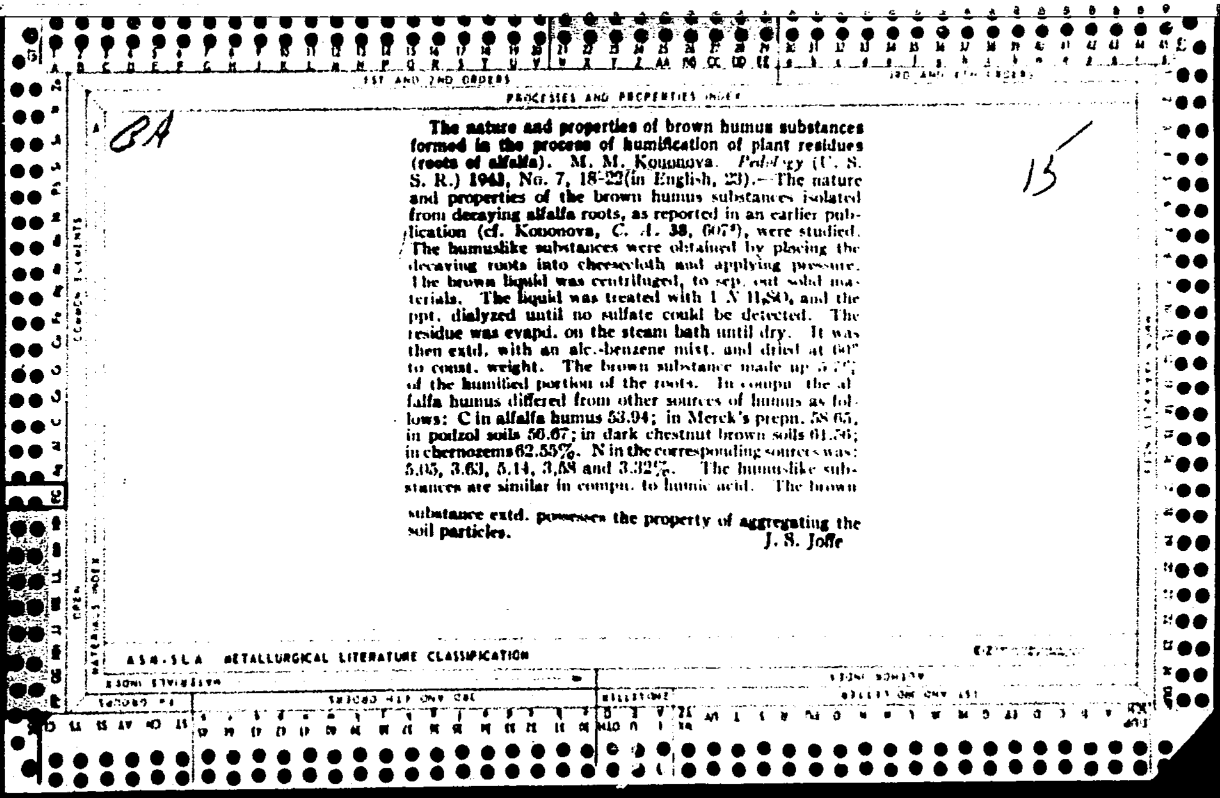
CA

15

The microscopic method for the study of the problem on the origin of humic substances. M. M. Kononova. *Pedology* (U. S. S. R.) **1943**, No. 6, 27-41 (in English, 41). —After reviewing the contributions on the source of origin of humus, K. summarizes the prevailing lignin theory of Fischer and Schrader (C. A. **16**, 2880) and shows some of its shortcomings. K. then proceeds to present her data based on microscopic examns. of decompg. alfalfa roots and chem. analyses of constituents. According to K. the decompn. begins with fungi, followed by aerobic cellulose bacteria (myxobacteria). These continue the decompn. of cellulose and fill the parenchyma of the xylem and partly of the cortex and the inner voids of the water ducts with the slimy materials of their bodies. The color of the bacterial mass and that of the decompg. parenchyma are light yellow, turning into brown humuslike material. In the formation of these materials the slightly lignified wood fibers participate. The lignin itself and the tannins of the cortex tissues remain intact at this stage of decompn. Only in later stages of decompn. are these substances attacked. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION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8A

15

The nature and properties of brown humus substances formed in the process of humification of plant residues (roots of alfalfa). M. M. Kononova. *Pedology* (U. S. S. R.) **1943**, No. 7, 18-22(in English, 23).—The nature and properties of the brown humus substances isolated from decaying alfalfa roots, as reported in an earlier publication (cf. Kononova, *C. A.* **38**, 6074), were studied. The humuslike substances were obtained by placing the decaying roots into cheesecloth and applying pressure. The brown liquid was centrifuged, to sep. out solid materials. The liquid was treated with 1 *N* H_2SO_4 and the ppt. dialyzed until no sulfate could be detected. The residue was evapd. on the steam bath until dry. It was then extd. with an alc.-benzene mixt. and dried at 60° to const. weight. The brown substance made up 5.7% of the humified portion of the roots. In compn. the alfalfa humus differed from other sources of humus as follows: C in alfalfa humus 53.94; in Merck's prepn. 58.65, in podzol soils 56.67; in dark chestnut brown soils 61.56; in chernozems 62.55%. N in the corresponding sources was: 5.05, 3.63, 5.14, 3.58 and 3.32%. The humuslike substances are similar in compn. to humic acid. The brown substance extd. possesses the property of aggregating the soil particles.

J. S. Joffe

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15

The process of formation of new humus substances. M. M. Kononova. *Pedology* (U.S.S.R.) 1944, No. 10, 456-70 (English summary).—K. worked with alfalfa roots, exposing these to decompn. outside and in the soil. The methods used were those described in earlier papers (C. A. 38, 607^{9}, 1827^{1}). Two stages are noted in the process of humification: (1) decompn. of carbohydrates and proteins whereby no humus substances are formed; this stage takes from 15 to 20 days; (2) aerobic decompn. of cellulose and other substances whereby humus is formed, this is noted after 2 to 2.5 months of decompn. K. also discusses the role of the fauna and reports her work with larvae of *Sciara*. In this work K. brings out the reduction-oxidation potentials in the decompn. of org. matter and shows that the anaerobiosis established in the medium rather than the lack of nutrients is responsible for the ill effects of decompn. of org. matter on crops. J. S. J.

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15

A study of the humification of plant residues by a microscopic method. M. M. Kononova and N. P. Bel'chikova. *Pedology* (U.S.S.R.) **1946**, 529-38. The changes in the tissues of plants (roots and leaves of clover and alfalfa roots) were followed microscopically simultaneously with chem. analyses. It was established that the brown substances need not be of lignin origin. The carbohydrates and lytic plasma of bacteria give rise to these substances. The myxobacteria seem to be active in this process. These substances are named prohumus and have 107 to 187 milliequiv. of exchange capacity for cations. Podzols and chernozem soils were examined for these substances.

J. S. Joffe

Soil Inst., AN SSSR

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15

Fundamental summaries of investigations on soil organic matter in the U.S.S.R. for the last 30 years. M. M. Kononova. *Pedology* (U.S.S.R.) 1947, 500-9.—A review of the latest contributions on: (1) the regularity in the content, distribution, and compn. of soil org. matter in the different soil types, (2) nature and properties of soil org. matter constituents, (3) the formation of humus substances in the humification of plant residues, (4) org. matter and soil structure.

J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KONONOVA, M. M.

25012 KONONOVA, M. M. Uglevodpyye Komponenty Rastitel'nykh Tkaney, Kak Istochniki Gumusovykh Veshchestv. -- Pri Uchastii: N. P. Bel'chikova I IV Aleksandrova. Trudy Yubileynoy Sessii, Posuyashch. Stoletiyu So Dnya Rozhdeniya Dokuchaygua. M. - L., 1949, S 232-36 -- Bibliogr's S 236

SO: Letopis', No. 33, 1949

USSR/Agriculture Jan 49
Soil Science
Humus

"Change in the Content and Composition of Organic Matter in Soil Cultivation," M. M. Konova, N. A. Pankova, N. P. Bel'chikova, 9 pp KONONOVA

"Pochvoved" No 1 p. 28-37

PA 56/49T4

Experiments conducted over many years showed that highest humus content was obtained in soils which had been fertilized with manure. Top 20 cm of soils had highest humus content. In general, the amount of humus created was 1/4 - 1/3 of the amount of

[illegible] 56/49T4

USSR/Agriculture (Contd) Jan 49

manure applied. Describes simple method to determine presence of free humic acids in soils treated with manure. Further research will be conducted to determine the amount of humus created in fields planted on a crop rotation system with periodic plantings of perennial grasses.

[illegible] 56/49T4

KONOVA, M. M.

KONONOVA

KONONOVA, M. M.

PA 59/49T57

USSR/Medicine - Myxobacteria Jan/Feb 49
Medicine - Microbiology

"The Part Played by Cellulose Myxobacteria in the Process of Destroying Plant Residues," M. M. Kononova, I. V. Aleksandrova, Soil Inst, Acad Sci USSR, Moscow, 9 pp

"Mikrobiol" Vol XVIII, No 1

Large amounts of cellulose myxobacteria are found in plant cells which are being converted into humus. Several pedologists, among them Imshenetskiy, Norman and Stanier, considered that these bacteria reduce plants to simple compounds, such as glucose, and use these

[redacted] 59/49T57

USSR/Medicine-Myxobacteria Jan/Feb 49
(Contd)

substances as their nutritive media. This reduction process is nothing more than hydrolysis, and more than two thirds of the products of this process are completely mineralized. Submitted 20 Jul 48.

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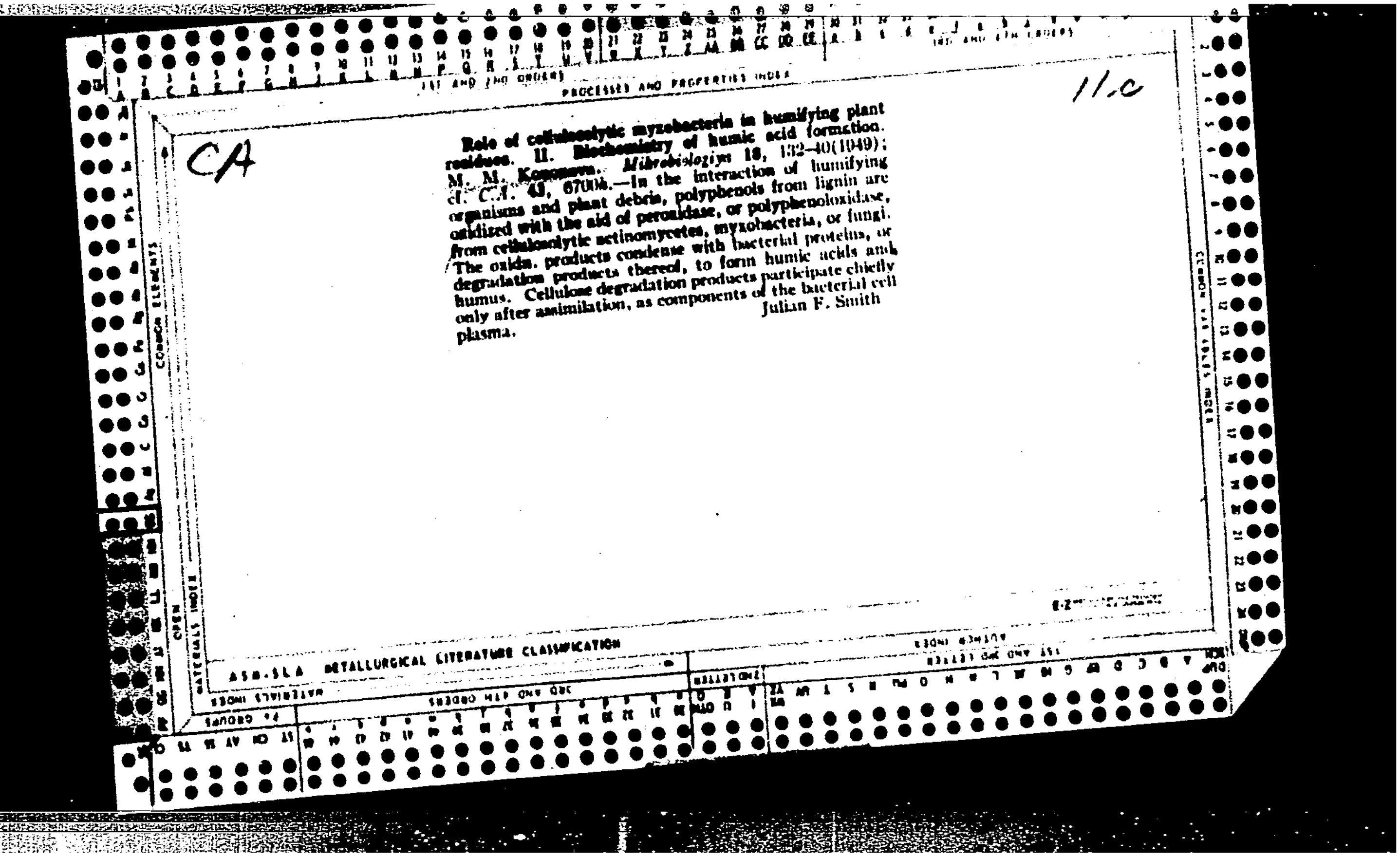

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11.c

Role of cellulosolytic myxobacteria in humifying plant residues. II. Biochemistry of humic acid formation. M. M. Kononova. *Mikrobiologiya* 18, 132-40(1949); cf. C.A. 43, 6700h.—In the interaction of humifying organisms and plant debris, polyphenols from lignin are oxidized with the aid of peroxidase, or polyphenoloxidase, from cellulosolytic actinomycetes, myxobacteria, or fungi. The oxidn. products condense with bacterial proteins, or degradation products thereof, to form humic acids and humus. Cellulose degradation products participate chiefly only after assimilation, as components of the bacterial cell plasma.

Julian F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KONONOVA M. M.

USSR/Medicine - Microbiology **Mar/Apr 49**
Medicine - Mycobacteria

"Action of Cellulose Mycobacteria in the Putrefactive Process of Vegetable Tissue," M. M. Kononova, Soil Inst, Acad Sci USSR, Moscow, 9 pp

"Mikrobiologiya" Vol XVIII, No 2

Concludes that cellulose is fundamental source of humus. Humic acid from vegetable tissue is formed by intensive decomposition of cellulose due to interaction of nitrogen-containing organic compounds and dissolved polyphenols. Submits

LC 44/49T83

USSR/Medicine - Microbiology (Contd) Mar/Apr 49

theoretical representation of process whereby first molecules of humic acid are synthesized. Submitted 20 Jul 48.

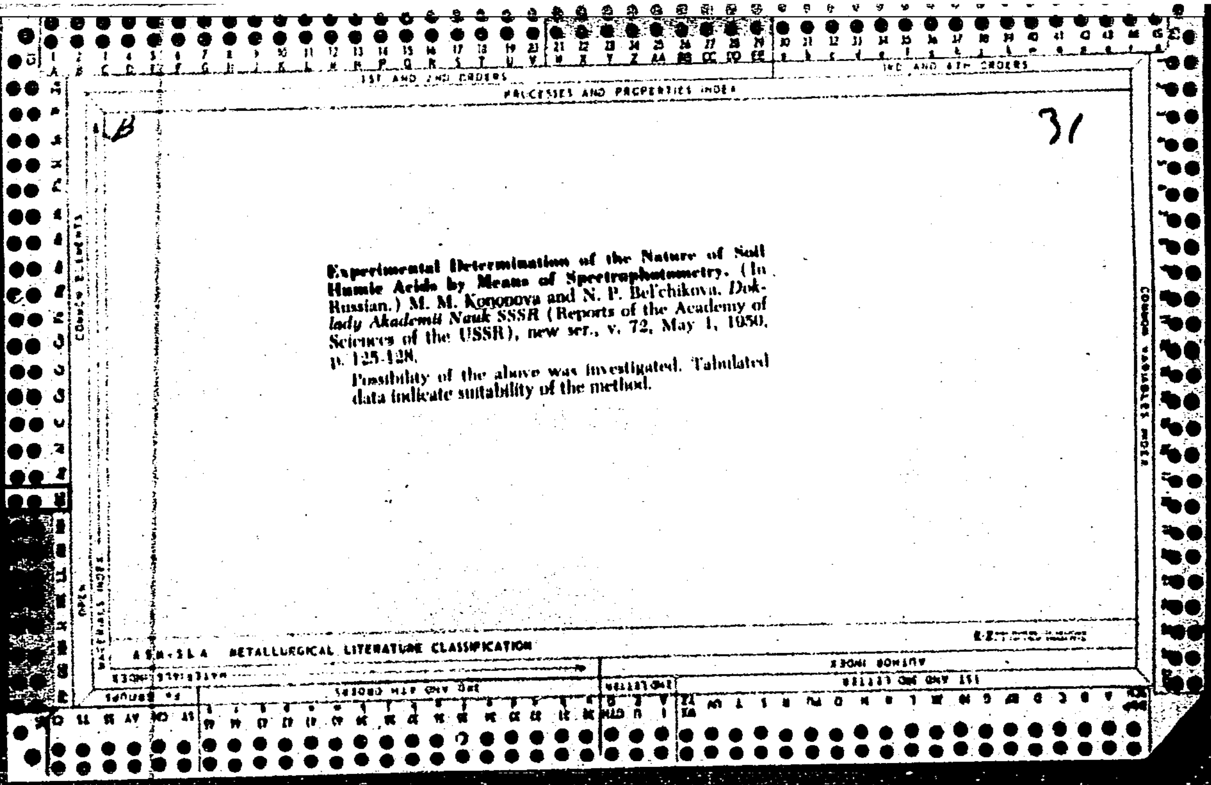
LC **44/49T83**

CA

17

The character of the accumulation-decomposition cycles of organic matter in grass-sod rotations in various soil-climatologic conditions. M. M. Kononova. *Pochvovedenie* (Pedology) (U.S.S.R.) 1950, 656-72.—An analysis of published data shows that the character of the cycles under any soil-climatologic conditions has some specificity in a grass-sod culture. Sod podzolized soils, as well as chernozem with an unstable moisture supply and irrigated gray semidesert soils, all accumulate approx. 0.3-0.5% org. matter if the soils are in sod for more than 1 yr. A good stand of grass leaves behind 5-10 tons/ha. of org. matter, in the form of roots. Upon plowing, the org. matter of the gray soils rapidly declines. The next in order of org. matter decline is the sod-podzol, followed by chernozem and chestnut brown soils. Temp. and moisture conditions are the factors that control the specificity of the decline of org. matter in the various soil zones.

J. S. Joffe



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B

31

Experimental Determination of the Nature of Soil Humic Acids by Means of Spectrophotometry. (In Russian.) M. M. Kononova and N. P. Bel'chikova. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 72, May 1, 1950, p. 125-128.

Possibility of the above was investigated. Tabulated data indicate suitability of the method.

2. 7.

11 D

Action of humus substances on growth and development of plants. M. M. Kononova and N. A. Pankova. *Doklady Akad. Nauk S.S.S.R.* **73**, 1069-71(1950).—Tests with well-dialyzed sols of Na humates, solns. of humic acids, and those of fulvic acids isolated from Podzol soils showed a definite pos. growth-stimulating effect on corn and wheat specimens. G. M. Kosolapoff

KONONOVA, M. M.

Agriculture

The problems of humus and contemporary tasks in studying it. Moskva Akademiia nauk SSSR, 1951.

M. M. Kononova received the Prize im. V. V. Dokuchayev for 1952 for this work. (Vest AN No. 7, p. 81, 1952)

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9. **Monthly List of Russian Accessions**, Library of Congress, June 195[illegible]. Unclassified.